

4590 4600 4610 4620 4630  
TAGTAAAACA CCATATGTAT GTTTCAGGGA AAGCTAGGGG ATGGTTTTAT

4640 4650 4660 4670 4680  
AGACATCACT ATGAAAGCCC TCATCCAAGA ATAAGTTCAG AAGTACACAT

4690 4700 4710 4720 4730  
CCCACTAGGG GATGCTAGAT TGGTAATAAC AACATATTGG GGTCTGCATA

4740 4750 4760 4770 4780  
CAGGAGAAAG AGACTGGCAT CTGGGTCAGG GAGTCTCCAT AGAATGGAGG

4790 4800 4810 4820 4830  
AAAAAGAGAT ATAGCACACA AGTAGACCCT GAAGTAGCAG ACCAACTAAT

4840 4850 4860 4870 4880  
TCATCTGTAT TACTTTGACT GTTTTTTCAGA CTCTGCTATA AGAAAGGCCT

4890 4900 4910 4920 4930  
TATTAGGACA TATAGTTAGC CCTAGGTGTG AATATCAAGC AGGACATAAC

4940 4950 4960 4970 4980  
AAGGTAGGAT CTCTACAATA CTTGGCACTA GCAGCATTA TAACACCAAA

4990 5000 5010 5020 5030  
AAAGATAAAG CCACCTTTGC CTAGTGTTAC GAAACTGACA GAGGATAGAT

5040 5050 5060 5070 5080  
GGAACAAGCC CCAGAGAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT

GGACAC;

(b) the sequence encoding ORF-R comprising the following nucleotides:

8250 8260 8270 8280 8290 8300  
GA CAGGGCTTGG AAAGGATTTT GCTATAAGAT GGGTGGCAAG TGGTCAAAAA

8310 8320 8330 8340 8350  
GTAGTGTGGT TGGATGGCCT ACTGTAAGGG AAAGAATGAG ACGAGCTGAG

8360 8370 8380 8390 8400  
CCAGCAGCAG ATGGGGTGGG AGCAGCATCT CGAGACCTGG AAAACATGG

8410 8420 8430 8440 8450  
AGCAATCACA AGTAGCAATA CAGCAGCTAC CAATGCTGCT TGTGCCTGGC

8460 8470 8480 8490 8500  
TAGAAGCACA AGAGGAGGAG GAGGTGGGTT TTCCAGTCAC ACCTCAGGTA

8510 CCTTTAAGAC 8520 CAATGACTTA 8530 CAAGGCAGCT 8540 GTAGATCTTA 8550 GCCACTTTTT  
 8560 AAAAGAAAAG 8570 GGGGGACTGG 8580 AAGGGCTAAT 8590 TCACTCCCAA 8600 CGAAGACAAG  
 8610 ATATCCTTGA 8620 TCTGTGGATC 8630 TACCAACAC 8640 AAGGCTACTT 8650 CCCTGATTGG  
 8660 CAGAACTACA 8670 CACCAGGGCC 8680 AGGGGTCAGA 8690 TATCCACTGA 8700 CCTTTGGATG  
 8710 GTGCTACAAG 8720 CTAGTACCAG 8730 TTGAGCCAGA 8740 TAAGGTAGAA 8750 GAGGCCAATA  
 8760 AAGGAGAGAA 8770 CACCAGCTTG 8780 TTACACCTG 8790 TGAGCCTGCA 8800 TGGAATGGAT  
 8810 GACCCTGAGA 8820 GAGAAGTGTT 8830 AGAGTGGAGG 8840 TTTGACAGCC 8850 GCCTAGCATT  
 8860 TCATCACGTG 8870 GCCCCGAGAGC 8890 TGCATCCGGA 8900 GTACTTCAAG AACTGC;

(c) the sequence encoding ORF-1 comprising the following nucleotides:

5030 AT 5040 GGAACAAGCC 5050 CCAGAAGACC 5060 AAGGGCCACA 5070 GAGGGAGCCA 5080 CACAATGAAT  
 5090 GGACACTAGA 5100 GCTTTTAGAG 5110 GAGCTTAAGA 5120 ATGAAGCTGT 5130 TAGACATTTT  
 5140 CCTAGGATTT 5150 GGCTCCATGG 5160 CTTAGGGCAA 5170 CATATCTATG 5180 AAAGTTATGG  
 5190 GGATACTTGG 5200 GCAGGAGTGG 5210 AAGCCATAAT 5220 AAGAATTCTG 5230 CAACAAGTGC  
 5240 TGTTTATCCA 5250 TTTCAGAATT 5260 GGGTGTCGAC 5270 ATAGCAGAAT 5280 AGGCGTTACT  
 5290 CAACAGAGGA 5300 GAGCAAGAAA 5310 TGGAGCCAGT AGATCC;

(d) the sequence encoding ORF-2 comprising the following nucleotides:

5280 5290 5300 5310 5320  
 GCGTTACT CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA

5330 5340 5350 5360 5370  
 CTAGAGCCCT GGAAGCATCC AGGAAGTCAG CCTAAAACTG CTTGTACCAC

5380 5390 5400 5410 5420  
 TTGCTATTGT AAAAAGTGTT GCTTTCATTG CCAAGTTTGT TTCACAACAA

5430 5440 5450 5460 5470  
 AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA GCGACGAAGA

5480 5490 5500 5510  
 CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAG;

(e) the sequence encoding ORF-3 comprising the following nucleotides:

5390 5400 5410 5420 5430  
 AAAGTGTT GCTTTCATTG CCAAGTTTGT TTCACAACAA AAGCCTTAGG

5440 5450 5460 5470 5480  
 CATCTCCTAT GGCAGGAAGA AGCGGAGACA GCGACGAAGA CCTCCTCAAG

5490 5500 5510 5520 5530  
 GCAGTCAGAC TCATCAAGTT TCTCTATCAA AGCAGTAAGT AGTACATGTA

5540 5550 5560 5570 5580  
 ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT

5590 5600 5610  
 AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATA;

(f) the sequence encoding ORF-4 comprising the following nucleotides:

5520 5530 5540 5550 5560 5570  
 GT AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG

5580 5590 5600 5610 5620  
 CAATAATAAT AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG

5630 5640 5650 5660 5670  
 AAAATATTAA GACAAAGAAA AATAGACAGG TTAATTGATA GACTAATAGA

5680 5690 5700 5710 5720  
 AAGAGCAGAA GACAGTGGCA ATGAGAGTGA AGGAGAAATA TCAGCACTTG

5730 5740 5750 5760 5770  
TGGAGATGGG GGTGGAAATG GGGCACCATG CTCCTTGGGA TATTGATGAT CTG;

and

(g) the sequence encoding ORF-5 comprising the following nucleotides:

7970 7980 7990 8000 8010  
CACTT ATCTGGGACG ATCTGCGGAG CCTTGTGCCT CTTCAGCTAC

8020 8030 8040 8050 8060  
CACCGCTTGA GAGACTTACT CTTGATTGTA ACGAGGATTG TGGAACCTCT

8070 8080 8090 8100 8110  
GGGACGCAGG GGGTGGGAAG CCCTCAAATA TTGGTGGAAT CTCCTACAGT

8120 8130 8140 8150 8160  
ATTGGAGTCA GGAATAAAG AATAGTGCTG TTAGCTTGCT CAATGCCACA

8170 8180 8190 8200 8210  
GCCATAGCAG TAGCTGAGGG GACAGATAGG GTTATAGAAG TAGTACAAGG

8220 8230 8240 8250 8260  
AGCTTGTTAGA GCTATTGCGC ACATACCTAG AAGAATAAGA CAGGGCTTGG

8270 8280  
AAAGGATTTT GCTATAAGA.

12. An amino acid sequence of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the amino acid sequence is free of particles of said virus and the sequence is selected from the group consisting of:

(a) the sequence encoding ORF-Q comprising the following amino acids:

*BS cont.*

Cys-Gln-Glu-Glu-Lys-Gln-Arg-Ser-Leu-Gly-Ile-Met-Glu-Asn-Arg-Trp-  
Gln-Val-Met-Ile-Val-Trp-Gln-Val-Asp-Arg-Met-Arg-Ile-Arg-Thr-Trp-  
Lys-Ser-Leu-Val-Lys-His-His-Met-Tyr-Val-Ser-Gly-Lys-Ala-Arg-Gly-  
Trp-Phe-Tyr-Arg-His-His-Tyr-Gln-Ser-Pro-His-Pro-Arg-Ile-Ser-Ser-  
Glu-Val-His-Ile-Pro-Leu-Gly-Asp-Ala-Arg-Leu-Val-Ile-Thr-Thr-Val-  
Trp-Gly-Leu-His-Thr-Gly-Glu-Pro-Asp-Trp-His-Leu-Gly-Gln-Gly-Val-  
Ser-Ile-Glu-Trp-Arg-Lys-Lys-Arg-Tyr-Ser-Thr-Gln-Val-Asp-Pro-Glu-  
Leu-Ala-Asp-Gln-Leu-Ile-His-Leu-Tyr-Tyr-Phe-Asp-Cys-Phe-Ser-Asp-  
Ser-Ala-Ile-Arg-Lys-Ala-Leu-Leu-Gly-His-Ile-Val-Ser-Pro-Arg-Cys-  
Phe-Tyr-Gln-Ala-Gly-His-Asn-Lys-Val-Gly-Ser-Leu-Gln-Tyr-Leu-Ala-  
Leu-Ala-Ala-Leu-Ile-Thr-Pro-Lys-Lys-Ile-Lys-Pro-Pro-Leu-Pro-Ser-  
Val-Thr-Lys-Leu-Tyr-Thr-Glu-Asp-Arg-Trp-Asn-Lys-Pro-Gln-Lys-Thr-  
Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-Asn-Gly-His;

(b) the sequence encoding ORF-R comprising the following amino acids:

B8 cont.  
Glu-Pro-Ala-Ala-Asp-Gly-Val-Gly-Ala-Ala-Ser-Arg-Asp-Leu-Phe-Lys-His-Gly-Ala-Ile-Thr-Ser-Ser-Asn-Thr-Ala-Ala-Thr-Asn-Ala-Ala-Cys-Ala-Trp-Leu-Phe-Ala-Gln-Phe-Phe-Phe-Phe-Val-Gly-Phe-Pro-Val-Thr-Pro-Gln-Val-Pro-Leu-Arg-Pro-Met-Thr-Tyr-Lys-Ala-Ala-Val-Asp-Leu-Ser-His-Phe-Leu-Lys-Glu-Lys-Gly-Gly-Leu-Glu-Gly-Leu-Ile-His-Ser-Gln-Arg-Arg-Gln-Asp-Ile-Leu-Asp-Leu-Trp-Ile-Tyr-His-Thr-Gln-Gly-Tyr-Phe-Pro-Asp-Trp-Gln-Asn-Tyr-Thr-Pro-Gly-Pro-Gly-Val-Arg-Tyr-Leu-Thr-Phe-Gly-Trp-Cys-Tyr-Lys-Leu-Val-Pro-Val-Phe-Pro-Asp-Lys-Val-Phe-Phe-Ala-Asn-Lys-Gly-Phe-Asn-Thr-Ser-Leu-Leu-His-Pro-Val-Ser-Leu-His-Gly-Met-Asp-Asp-Pro-Glu-Arg-Glu-Val-Leu-Glu-Trp-Arg-Phe-Asp-Ser-Arg-Leu-Ala-Phe-His-His-Val-Ala-Arg-Glu-Leu-His-Pro-Glu-Tyr-Phe-Lys-Asn-Cys;

(c) the sequence encoding ORF-1 comprising the following amino acids:

Trp-Asn-Lys-Pro-Gln-Lys-Thr-Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-Asn-Gly-His-Amber-Ser-Phe-Amber-Arg-Ser-Leu-Arg-Met-Lys-Leu-Leu-Asp-Ile-Phe-Leu-Gly-Phe-Gly-Phe-Gly-Ser-Met-Ala-Amber-Gly-Asn-Ile-Ser-Met-Lys-Leu-Met-Gly-Ile-Leu-Gly-Gln-Glu-Trp-Lys-Pro-Ochre-Ochre-Glu-Phe-Cys-Asn-Asn-Cys-Cys-Leu-Ser-Ile-Ser-Glu-Leu-Gly-Val-Asp-Ile-Ala-Glu-Amber-Ala-Leu-Leu-Asn-Arg-Gly-Glu-Gln-Glu-Met-Glu-Pro-Val-Asp-Pro;

(d) the sequence encoding ORF-2 comprising the following amino acids:

Ala-Leu-Leu-Asn-Arg-Gly-Glu-Gln-Glu-Met-Glu-Pro-Val-Asp-Pro-Arg-Leu-Glu-Pro-Trp-Lys-His-Pro-Gly-Ser-Gln-Pro-Lys-Thr-Ala-Cys-Thr-Thr-Cys-Tyr-Cys-Lys-Lys-Cys-Cys-Phe-His-Cys-Gln-Val-Cys-Phe-Thr-Thr-Lys-Ala-Leu-Gly-Ile-Ser-Tyr-Gly-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-Pro-Pro-Gln-Ser-Gln-Thr-His-Gln-Val-Ser-Leu-Ser-Lys-Gln;

(e) the sequence encoding ORF-3 comprising the following amino acids:

Lys-Val-Leu-Leu-Ser-Leu-Pro-Ser-Leu-Phe-His-Asn-Lys-Ser-Leu-Arg-His-Leu-Leu-Trp-Glu-Glu-Ala-Glu-Thr-Ala-Thr-Lys-Thr-Ser-Ser-Arg-Gln-Ser-Asp-Ser-Ser-Ser-Phe-Ser-Ile-Lys-Ala-Val-Ser-Ser-Thr-Cys-Asn-Ala-Thr-Tyr-Thr-Asn-Ser-Asn-Ser-Ser-Ile-Ser-Ser-Ser-Asn-Asn-Asn-Ser-Asn-Ser-Cys-Val-Val-His-Ser-Asn-His-Arg-Ile;

(f) the sequence encoding ORF-4 comprising the following amino acids:

Val-Val-His-Val-Met-Gln-Pro-Ile-Gln-Ile-Ala-Ile-Ala-Ala-Leu-Val-Val-Ala-Ile-Ile-Ile-Ala-Ile-Val-Val-Trp-Ser-Ile-Val-Ile-Ile-Glu-Tyr-Arg-Lys-Ile-Leu-Arg-Gln-Arg-Lys-Ile-Asp-Arg-Leu-Ile-Asp-Arg-Leu-Ile-Glu-Arg-Ala-Glu-Asp-Ser-Gly-Asn-Glu-Ser-Glu-Gly-Glu-Ile-Ser-Ala-Leu-Val-Glu-Met-Gly-Val-Glu-Met-Gly-His-His-Ala-Pro-Trp-Asp-Ile-Asp-Asp-Leu; and